



A net is fired over a doe mule deer south of Bih Piney.

Dr. Kevin Monteith uses an ultrasound to measure a deer's body fat.

Wyoming Range Deer Project

The Wyoming Cooperative Fish and Wildlife Research Unit and Wyoming Game and Fish Department, along with many other volunteers, conducted another mule

deer capture in the Big Piney area. The research was initiated during the winter of 2012-2013. The overarching goal of the project is to investigate the nutritional relationships between mule deer populations, energy development, habitat conditions, and climate.

The first helicopter capture occurred in March 2013 with the capture of 70 adult females, 35 in the northern (Big Piney/La Barge) and 35 in the southern (Kemmerer/Evanston) winter ranges. Each deer has been fitted with a GPS collar to be worn for two years. Ultrasonography is also performed at each capture to determine percent body fat and pregnancy. Animals are recaptured each December and March to evaluate change in body condition between seasons.

Additionally, the deer are monitored each autumn to determine fawn production and survival. Productivity of individual animals combined with their body condition and forage production data will be used to determine

the habitat's "nutritional carrying capacity." Ultimately, this information will allow

wildlife managers to assess whether
the Wyoming Range deer herd is
reaching its reproductive capacity
based on current available habitat.
This research addresses primary com-

ponents outlined in the WY Range Mule Deer Initiative.



Jackson-Pinedale Wildlife Coordinator Doug McWhirter removes a deer's blindfold before it's release.



A doe deer is released after handling.



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(Above and Below) Pronghorn nibble on what little sagebrush is available above the crusted snow on winter range near Big Piney.



Tough Winter

All of western Wyoming continues to be well above average for snowfall. The combination of very cold temperatures, deep snow and a couple thaw and refreezing cycles have made it very difficult for animals to find forage. Consequently, wildlife managers are expecting fairly significant losses for both mule deer and pronghorn, especially fawns. Although moose have longer legs to deal with the deep snow, it is likely that their numbers will suffer a dip as well. Elk are expected to fare the best as a majority are supplementally fed at an established feedground. Managers will be proposing more conservative hunting seasons this year, especially for mule deer and antelope. Recent winter big game counts and the hunting seasons being proposed for fall of 2017 will be discussed at a public meeting scheduled for **6:00 pm Monday, March 20** at the Pinedale Game and Fish office.



(Above) With natural forage unavailable due to deep crusted snow, mule deer resort to a landowner's hay bales south of Pinedale. (Below) Managers are expecting significant mortality, especially in local deer & antelope herds.



A mule deer nibbles on some of the sparse, over-browsed forage available on the Pinedale Mesa.





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Tough Winter (Continued)





(Left) Five moose in deep snow north of Daniel. (Above) A pair of moose in search of hay at a residence in Pinedale.



(Left) Mule deer at haystacks on private lands near Farson. The animals typically browse on shrubs during winter and their stomachs are not set up to metabolize the nutrients in hay and often end up dying with a belly full of hay. (Right) Game Wardens Dustin Shorma and Rob Hipp, from the eastern part of state, help out by delivering hay to lure elk away from conflicts on private lands near Farson.







(Above) An aerial view near Buckskin Crossing showing a herd of mule deer making their way across a barren landscape of deep snow, covering forage that would be available in other years. Photo by Jordan Kraft

Can Dogs Smell Brucellosis?

Wyoming Game and Fish Brucellosis-Feedground-Habitat personnel are partnering with researchers from Utah State University who are testing the feasibility of using sniffer dogs to identify cow elk that are infected or seropositive for brucellosis. Fecal samples and vaginal swabs were collected at a number of elk feedgrounds. The animals from which samples were collected, also had blood drawn and researchers determined which samples to use as the training 'target' based on the results of their blood work. Two dogs, a black lab and an Australian cattle dog mix, were then trained using a ball reward to discriminate between samples taken from seropositive and seronegative elk.



Ripley, a 6-year old black lab, works on fecal samples taken from cow elk at Wyoming's feedgrounds to identify brucellosis. Photo by Jared Rogerson

This project has several goals. Currently, there are few tests for brucellosis in elk that can be conducted quickly in the field. If sniffer dogs can accurately identify infected or seropositive elk, they could provide wildlife managers with another research tool. The broader implications of this work are that disease detection in wildlife could be conducted without the need to capture and handle animals. For instance, if the question is, "Are any of the animals in this herd sick?", scat samples could be collected by people (with or without dogs) where the animals have recently been. These samples could be taken to another location where trained sniffer dogs run past them, and if they alert to any of the samples, you would have reason to suspect there are infected animals present on that land-scape.

Dogs have been used to detect cancer and other diseases. The science underlying much of this sniffer dog work is that when an animal has a particular illness, there are volatile organic compounds present in their breath, feces, or urine, that are unique to that illness, and that dogs can smell and remember. Results are expected later this year, in the meantime the dogs are training every day!



Curlew Research Continues

The Wyoming Game and Fish Department is excited to announce that they have received funding allowing them to continue their long-billed curlew research in Wyoming. The research, initiated in 2015, is being conducted in partnership with the Intermountain Bird Observatory of Boise State University and is part of a larger study including the states of Wyoming, Idaho and Montana.

Research to date has shown that some of the highest densities of nesting long-billed curlews can be found in the wet meadows of the Daniel/

Pinedale area of Wyoming. Researchers have already collaborated with many area landowners to document nesting curlews and hope to partner with these and additional willing landowners to expand their research this summer. For those landowners willing to participate in the study or wishing to speak directly with one of the researchers, they can contact Jay Carlisle, Research Director at Intermountain Bird Observatory (208-830-3363).

From the Front Desk...

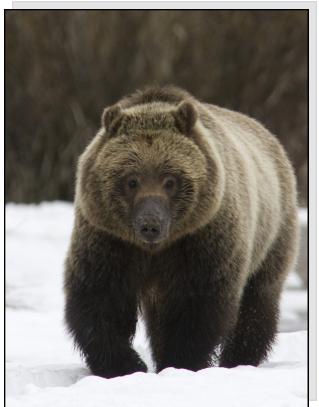
Pinedale Game and Fish Office Managers Lori Johnson and Kristen Draney remind spring black bear hunters that they can renew their bait sites until March 20. New baits can be registered in person at the Pinedale office starting at 8:00am Monday, April 3rd.

Also, a reminder of new regulation changes: All registered bait sites must be baited, and they must contact the local Game & Fish office with GPS coordinates for their bait locations within seven days of placing their bait or lose the option to renew the site in 2018.



Living with Large Carnivores

It's that time of year again when bears are waking up and people are preparing to enjoy the great outdoors. As spring arrives, the Wyoming Game and Fish Department <u>reminds outdoor enthusiasts to be "bear aware"</u> and take the necessary precautions to avoid conflicts with large carnivores.



Large Carnivore Conflict Coordinator Brian DeBolt said that at this time of year, bears are emerging from their dens. "Typically, male bears emerge from their dens in mid-March and April, while females and young-of-the-year cubs emerge in late April and early May," DeBolt said. "This makes it an ideal time to attend a workshop to learn about large carnivores and how to avoid encounters and potential conflicts."

Educational workshops are being offered in communities across the state. These two are scheduled locally:

April 19—Sublette County Library, Pinedale 6:00-8:00pm

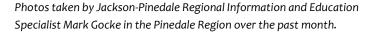
April 24—Teton County Library, Jackson, 6:00-8:00pm

At each workshop, Game and Fish large carnivore managers will present information about bear, mountain lion and wolf ecology, population status, management and more importantly, what people should do in an encounter situation. In addition, there will be discussion on preemptive measures to be taken by the public in order to reduce the likelihood of conflicts with carnivores.

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Photo Page...





A snowy landscape near Bondurant.



The rugged Wind River Range.



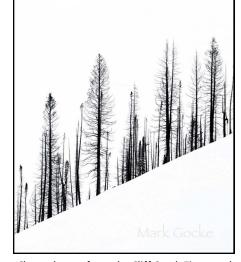
Wind-Sculpted snow north of Bondurant.



Pronghorn in search of food on the Pinedale Mesa.



A golden eagle takes off from its meal of a sage grouse it caught on the Pinedale Mesa. Deep Snow means less hiding cover for grouse.



Charred trees from the Cliff Creek Fire stand in sharp contrast to the snowy landscape north of Bondurant.